

R E M A R K S

Claims 1-8, 20 and 21 currently remain in the application. Claims 9-19 are canceled. No claims are herein amended.

Claims 1-8, 20 and 21 were rejected under 35 U.S.C. 102 as being anticipated by Bell which incorporates Chow by reference.

Both Bell and Chow describe the discrete multitone (DMT) method of the DSL technology. By this method, the available bandwidth of a channel is divided into sections (each having a width of, say, 4kHz) for attenuating noise and interference on a circuit line. The channels that are deficient (with much noise and interference) receive less data to transmit while transmission bits are increased in good channels (not with much noise and interference) such that an optimal transmission bandwidth having desired transmission characteristics (such as transmission power mask and bit rate) can be calculated (column 4 at lines 30-40 of Bell, column 3 at lines 24-26 of Chow and column 5 at lines 26-36 of Chow). As pointed out by the Examiner (in page 10 of the Official Letter), if a rectangular pulse in time domain is Fourier-transformed into the frequency domain, a plurality of frequencies (say, f , $2f$, $3f$, $4f$, $5f$, etc.) will be obtained separately together with their amplitudes. Thus, if the pulse width is varied, the values of the separations and the amplitudes will change correspondingly.

What is important here, however, is the difference between "frequency" (or "frequencies") and "bandwidth." Bandwidth, by definition, means the domain in which frequencies appear continuously. If certain frequencies appear separately (without any semblance of continuity) and sporadically (or discontinuously) over a certain domain, such a domain is not referable as a part of a frequency band.

If expression "bandwidth" is thus correctly interpreted, what one obtains by Fourier-transforming pulse widths of rectangular pulse is not a bandwidth, but a series of isolated frequency values. In other words, as the pulse widths are varied, it cannot be said that there is any change in a bandwidth because there is no one-to-one relationship between a change in pulse width and a change in bandwidth. In still other words in view of the Examiner's response in page 10 of the Official Letter, applicant respectfully points out that changing the width of a pulse is NOT equivalent to changing its bandwidth. Applicant stands firmly on this ground, ready to have this point reviewed by any reviewing body.

Applicant additionally points out that the objects of the present invention are different

from those of Bell or Chow. The present invention is for making it easier to judge the reliability condition of a communication line for a field network by measuring the allowable region for waveform distortions (changes in pulse widths along the time axis) from a response from a unit. The object of Bell and Chow is to measure the signal to noise ratio over a wide frequency band area in order to calculate an optimal frequency band for a desired communication characteristics.

In summary, it is believed that the present Amendment is totally responsive to the Office Action and hence that the application is now in condition for allowance. The Examiner is requested to issue at least an advisory action, if not a notice of allowance, at an early date in view of the mailing of this Amendment within two months of the mailing date of said Final Office Action.

Respectfully submitted,
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January 23, 2008
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